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Group-Washington

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November 5, 1996

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Federal Communications Commission
Office of Secretary

EX PARTE

William F. Caton
Acting Secretary
Federal Communications Commission
Mail Stop 1170
1919 M Street, N.W., Room 222
Washington, D.C. 20554

Dear Mr. Caton:

Re: CC Docket No. 91-346, Intelligent Networks
CC Docket No. 96-98, Interconnection

The enclosed letter and attachments were sent to Ms. Regina Keeney, Chief of the Common Carrier Bureau. Copies were also sent to the following FCC personnel: Richard Metzger, Richard Welch, John Nakahata, Jim Casserly, Pete Belvin, and Dan Gonzalez. Please associate this material with the above referenced proceeding.

We are submitting two copies of this notice in accordance with Section 1.1206(a)(1) of the Commission's Rules.

Please stamp and return the provided copy to confirm your receipt. Please contact me should you have any questions or require additional information concerning this matter.

Sincerely,

Alan F. Ciamporcero

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Vice President

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Group-Washington

November 5, 1996

EX PARTE

Ms. Regina Keeney
Chief, Common Carrier Bureau
Federal Communications Commission
1919 M. Street, N.W., Room 500
Washington, D.C. 20554

Re: CC Docket No. 91-346, Intelligent Networks
      CC Docket No. 96-98, Interconnection

Dear Ms. Keeney:

In order to update the record in the above referenced docket, the following status report on the *Industry Intelligent Network Project (IN Project)* is provided below.[1]

In February 1996 the proposing LECs, recognizing the need for immediate action to resolve IN-related issues, decided to pursue the implementation of their proposed *IN Project* by sending a "show-of-interest-letter" to over 500 industry participants.[2] More than 65 companies responded to this show of interest letter. Twelve companies expressed a specific interest in participating on the Project Organizing Committee (Step 1 of the *IN Project*) – the goal of which was to recommend the best method of implementing the *IN Project*. Following an analysis of existing industry fora as well as what would be required to organize a new forum to implement the *IN Project*, the Project Organizing Committee formed the following recommendation:[3]

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[1]   *See Ex Parte* filed June 23,1995, by SBC on behalf of Bell Atlantic, BellSouth, GTE, Lincoln, Pacific, SNET, Southwestern Bell, Sprint Local, and U S WEST (Joint LECs). *See* also *Public Notice*, DA 95-1456 (correction released June 30, 1995).

[2]   *See Ex Parte* filed May 10,1996, by SBC on behalf of the Joint LECs which lists the companies responding.

[3]   Of the Joint LECs, only three were represented on the Project Organizing Committee in order to eliminate any concerns that the Joint LECs would attempt to influence the outcome.

- Begin the *IN Project* through creation of a working group within the Intelligent Network Forum (IN Forum) to work on the tasks identified in Step 1 (Organizational Meeting) and Step 2 (Identify, Research, and Analyze IN Requirements, Design Lab Tests and Field Trials) of the *IN Project* proposal.

- Initiate liaison discussions between the IN Forum and appropriate fora and/or committees within the Alliance for Telecommunications Industry Solutions (ATIS) to identify and implement, as appropriate, the optimal means for coordinating and conducting the tests envisioned by the *IN Project* and establishment of industry interconnection standards.

The committee's recommendation for beginning the *IN Project* was approved, with no dissenting votes, at a Project Organizing meeting held October 3, 1996. With approval of the recommendation, the *IN Project* has moved to the IN Forum's Interconnection and Access Group. This group's mission is to objectively gather and assess data regarding the requirements and issues associated with IN interconnection and access. The working group will: (1) identify, research, and analyze IN requirements and issues; and (2) work with ATIS and other industry organizations to design and perform laboratory tests and field trials (*see* Attachment 3). The working group leader solicited working group participants from the industry at the IN Forum meeting in order to immediately begin work on the *IN Project*. The work group's first conference call was November 4, 1996.

As closure, the IN Project Organizing Committee sent a letter to the show-of-interest-letter respondents informing them of the turnover of the *IN Project* to the IN Forum for implementation.

The Joint LECs look forward to participating with the industry in resolving the many issues that have been identified, and placed on the record, in the Intelligent Network docket and in the Interconnection Proceeding (CC Docket No. 96-98). The scope of the *IN Project*, which includes: (1) identification, research, and analysis of IN requirements and issues regarding mediated access and the feasibility of service creation capabilities on IN platforms in connection with exchange and exchange access service; and (2) the design and performance of laboratory tests and field trials; should provide the industry and regulators with essential information needed for resolution of the issues raised in CC Docket No. 91-346.

The Joint LECs ask the Commission to support the *IN Project* that now has been embraced by key segments of the industry as the best method of resolving issues associated with the Intelligent Network and third party interconnection.

Sincerely,

Alan F. Ciamporcero (*dd*)

Alan Ciamporcero

Attachments

cc: Richard Metzger
      Richard Welch
      John Nakahata
      Jim Casserly
      Pete Belvin
      Dan Gonzalez

ATTACHMENT 1

Intelligent Network Forum
Technical Committee Overview

Intelligent Network Forum
Technical Committee Overview

I. Purpose of Technical Committee

The purpose of the Technical Committee is to accomplish the technical work of the Intelligent Network Forum (INF). Participation in the Technical Committee is voluntary and is open to all Principal and Participating Members of the INF.

II. Technical Committee Mission Statement

The INF Technical Committee mission is " to support the objectives of the IN Forum through the cooperative production of Technical Implementation Agreements intended to accelerate the deployment of Intelligent Network services and facilitate the resolution of the issues related to interoperability, architecture, and management.

III. Organization of the Technical Committee

The INF Technical Committee is a standing committee of the INF. It is led by a Chairperson and a Vice Chairperson who are elected by the Principal Members for a one (1) year term. The Technical Committee will oversee the work efforts of its assigned Working Groups and approve deliverables from these Working Groups. All Principal and Participating Members in good standing are welcome to send representatives to the Technical Committee meetings but only Principal Members are allowed to vote on issues at the Technical Committee level.

To further the technical work efforts of the INF the Technical Committee will assign specific areas of interest to Working Groups. The Working Groups are created by the INF Management Committee based on member contributions that identify specific concerns or areas where there is a need for Technical Implementation Agreements or other Deliverables. All Principal and Participating Members are welcome to participate in Working Groups and both memberships have voting rights at the Working Group level.

Working Groups are led by Working Group Leaders and Editors. The Working Group Leaders are responsible for maintaining a regular schedule of working group meetings, setting the agenda for meetings, managing the progress of the Working Group and reporting on that progress to the Technical Committee. Working Group Editors are responsible for maintaining the written output of the Working Group, keeping and distributing minutes of the meetings to participants, and tracking any submissions from the Working Group.

IV. Progress in 1996

To date most of the effort in the INF has revolved around organizing the forum, determining mission and scope of the forum, recruiting new members, and defining committee structures. The INF became an official organization in April, 1996 and the Technical Committee has made a great deal of progress since that time.

In May, 1996 twelve contributions from member companies were reviewed and evaluated by the Technical Committee. Many of these contributions were merged together since they focused on similar areas of interest. The result of this evaluation and selection process was the formation of four (4) Working Groups that would focus on the key areas of interest identified through these contributions.

The Working Groups that were formed at the May INF meeting were:

- The Platform Interoperability Group
- The Services Architecture Group
- The OAM&P Group
- The IN Interconnection and Access Group

Interim Working Group Leaders were identified for the groups in order to move forward on initial work which included defining mission statements and goals for the Working Groups.

V. Working Groups

Two of the working groups have made significant progress in recruiting resources and defining work plans for the remainder of 1996 and for 1997. Two of the working groups need to be staffed with resources from member companies in order to move forward in defining projects and work plans for 1997.

The following provides an overview of the working groups, their mission statements, goals, work plans, etc.

A. Platform Interoperability Working Group

1. Market Background

Telecommunications is increasingly seen by the "marketeers" as a strategic business weapon, so the demand for new services and to evolve existing services is increasing every day. To meet this demand for new enhanced services, many service providers are adopting the Intelligent Network paradigm.

The Intelligent Network (IN) is a novel architectural concept for telecommunication networks that enables network operators as well as independent service providers to swiftly introduce new services into their networks, reduce cost of delivery, and provide the quality of service demanded from customers.

The recent Telecom Act, however, has rearranged the playing field and where the original IN philosophy was based on centralized Service Control Points (SCPs) it now appears that the distributed use of service logic will be put into effect quicker than the planners originally imagined. This new competition requires open interfaces, not only on the protocol level between network nodes, but also at the application and resource levels. Service platforms need to be made available on all levels independent of the access arrangements.

Conventional approaches to introducing this new services left the Network Service Provider dependent upon the switching equipment suppliers to incorporate the required feature functionality into the embedded base of switching equipment. This process took several years to define, develop, and test new services before they were ready to deploy services into the network and left little room for customization of services by individual Network Service Providers.

For several years service providers have been working with Bellcore and industry standards bodies to develop a new network concept commonly referred to as the Intelligent Network (IN). Multiple IN architectural models have been developed and accepted as industry standards; the most common being the AIN model from Bellcore and the Intelligent Network Capability Set developed by the International Telecommunications Union (ITU, formerly CCITT). Both of these models describe a functional framework and interface standards but neither of these models specify how these interface standards are to be implemented on any given computing or switching platform.

The availability of IN standards has opened the door for many non-traditional vendors to develop new network applications on general purpose computing platforms and interface these platforms with embedded network switches through either traditional customer to network interfaces or the new industry standard IN interfaces.

Unfortunately, these non-traditional vendors have implemented these application using proprietary software platforms which generally are designed to provide a limited number of functions with little or nor interoperability between platforms. Consequently, Network Service Providers are generally forced to select a new platform for each new network service, resulting in the proliferation of multiple, disjointed platforms dedicated to each new service, commonly referred to as "point solutions". These disjointed platforms create excessive operational and administrative costs while making it impractical to achieve a significant level of commonality of service offerings between platforms. In addition, many of these platforms require the vendor to develop new services or make modifications to existing services similar to conventional service development on switch-based services.

Recognizing this problem the INF has set out to define a common environment with open interfaces that could be used by multiple developers to deploy the numerous functions needed to implement a variety of new network services.

2. Mission of the Platform Interoperability Working Group

To define an architecture which supports:

- Interchangeable, multi-vendor applications including support of multiple Service Creation Environments (SCEs)
- Interchangeable multi-vendor components
- Interworking with legacy resources/point solutions
- "Plug & Play" extensibility
- Service interoperability

3. Goals of the Platform Interoperability Working Group

- To provide an object model of a distributed enhanced services architecture and enumeration of the goals supported by the reference architecture
- Identification of working groups, standards applicable to IN architecture
- Development of interface control documents
- Identification of gaps or incompatibilities of current industry work efforts
- Agree on common terminology for objects and inter-object interfaces

4. Initial Work Effort

The initial work effort of the Platform Interoperability Group will focus on two projects which have been submitted by member companies as contributions and are complimentary to one another.

The longer term project will involve the documentation of a flexible, object-oriented, interoperable reference architecture that can be implemented using open interfaces that have been or are being defined by the INF and in many cases other industry forums and standards groups such as the ECTF, ETSI, etc. This architecture is referred to as the Intelligent Network Reference Architecture (INRA). The INRA will be based on present industry standards and reference architectures and will strive to identify areas which are yet to be covered by industry standards bodies, other industry forums, or "de facto" industry standards.

This environment would link IN platforms together quickly and economically thus making an end-to-end service with minimal concern over interoperability between the basic resources supplied by different vendors.

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The short-term project for the working group will focus on a "proof of concept" model which defines a set of specifications for an enhanced resource platform based on the principles of the INRA. The proof of concept model will consist of evolving the Intelligent Network Peripheral components of the controller and Resource Platform Interface Specification (RPI) (which is being offered to the IN Forum as a contribution) into a Service Node Intelligent Controller (SNIC). The RPI allows the separation of control and data from each Resource Platform and is one of the keys to a standard architecture that has been adopted by a number of Intelligent Peripheral (IP) vendors.

5. Deliverables

The output of these projects would be two-fold:

- Provide an evolving Object Model Framework for reference to standards and interfaces a white paper available to the industry
- Provide a proof of concept set of specifications for an enhanced resource platform

B. Services Architecture Working Group

1. Mission of the Services Architecture Working Group

The mission of this working group is to address issues related to services that operate across different networks (wireline, wireless, cable, etc.) offered by different service providers with different network architectures.

2. Goals of the Services Architecture Working Group

The goal of this working group is to develop Technical Implementation Agreements to handle:

- Service control hand-off
- Service interoperability
- Service mobility management

between multiple applications and service providers

3. Status of Work Effort

Several contributions involving service architecture and services mobility have been submitted by member companies. The working group was formed to address these contributions. The INF is currently recruiting member companies to provide resources to staff this working group so that projects can be defined and work plans developed for 1997.

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C. OAM&P Working Group

1. Mission of the OAM&P Working Group

The mission of the OAM&P Working Group is to address issues related to deployment, installation, operation, performance and response time, security access, service creation and service management.

2. Status of Work Effort

Several contributions involving operations and management issues relative to IN services have been submitted by member companies. The working group was formed to address these contributions. The INF is currently recruiting member companies to provide resources to staff this working group so that projects can be defined and work plans developed for 1997.

D. The IN Interconnection and Access Working Group

1. Background on the Formation of this Working Group

In May, 1996 the INF Technical Committee originally defined a working group called the Network Access Group that was created to work on issues related to defining extensions to existing network interfaces and effectively utilizing existing interfaces between IN platforms and public network/CPE to enhance IN functionality. Before any major projects could be defined by this working group, the INF was approached by the IN Industry Project organizing committee to determine our interest in combining efforts.

The IN Industry Project was originally proposed as an industry-wide collaborative effort with the goal to objectively gather and assess data regarding the requirements and issues associated with mediated access to Intelligent Networks. Data and experience gathered during the Project would provide the industry and regulators with essential information needed for resolution of the issues raised in FCC CC Docket No. 91-346.

The scope of the IN Industry project included (1) identification, research and analysis of IN requirements and issues regarding mediated access and the feasibility of service creation capabilities on IN platforms in connection with exchange and exchange access services and (2) the design and performance of laboratory tests and field trials.

Many service providers, equipment vendors, application developers, enhanced service providers, etc. have shown interest in the IN Industry Project. Over the last few months the organizing committee for the IN Industry project has evaluated creating their own organization to further the work of the project versus combining their efforts with existing industry forums/organizations.

At a recent meeting of the IN Industry Project a vote was taken to do the following: (1) begin the proposed work of the IN Industry Project in a working group of the INF Technical Committee and (2) establish a liaison between the INF and the Alliance for Telecommunications Industry Solutions (ATIS). The purpose of this liaison would be to identify and implement as appropriate the optimal means for coordinating and conducting the tests envisioned for this work.

With respect to the work that will begin within the INF, interested participants in the IN Industry project who want to progress with this proposed work will become members of the INF and participate in the appropriate working group(s).

The result of this collaborative effort is the re-naming and re-definition of the INF Network Access Working Group, which is now the IN Interconnection and Access Group. The objectives and goals of the IN Industry project will become part of the efforts of this working group in addition to other interconnection and access issues that may be addressed in the future.

2.   Mission of the IN Interconnection and Access Working Group

The mission of the IN Interconnection and Access Working Group is to objectively gather and assess data regarding the requirements and issues associated with IN interconnection and access. The working group will (1) identify, research, and analyze IN requirements and issues (2) and working with ATIS and other industry organizations, design and perform laboratory tests and field trials.

3.   Status of Work Effort

Since the decision to begin the IN Industry Project work within the INF has just recently been made the working group is in its early stages of formation. Some initial planning and work effort will be undertaken at the upcoming INF Annual Meeting October 16-17.

As the original participants in the IN Industry Project become members of the INF more resources will be assigned to this working group and formal work plans will be developed for 1997.

Pete Russo of Bellcore has agreed to continue as Leader of this Working Group and will be working with interested member companies to recruit resources and to develop work plans and define deliverables for 1997.

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VI. Contact Information

For more information about joining the INF please contact:

INF Executive Director   Cathy Horn
903-769-3717
chorn@ballistic.com.

For more information about the INF Technical Committee and its activities please contact the Chairperson:

Chairperson   Kamal Sethia (AGCS)
602-582-7079
sethiak@agcs.com

ATTACHMENT 2

Project Organizing Committee Report
on the
Industry Intelligent Network Project

Industry Intelligent Network Project

IN Forum Technical Committee
Interconnection and Access
Working Group

Project Organizing Committee Report
October 17, 1996

Industry Intelligent Network Project - Background

- **9 LECs proposed the IN Project as a means for the industry to cooperatively develop the data and information needed to make decisions on IN Interconnection**

- **Show of Interest letter sent to interested parties (over 500 mailed, 73 responded from 66 entities, 62 requested placement on mailing list)**

- **Project Organizing Committee formed to start project (19 members from 16 entities)**

Organizing Committee Activities

- Committee concluded that the IN Project should be worked/placed within an existing industry group

- Conceptual Proposal for Liaison between the IN Forum and the Intelligent Network Project presented to IN Forum - May 22, 1996

- On June 24, the IN Forum unanimously approved that "the IN Project would be subsumed by the IN Forum" and "would be conducted within a new working group of the IN Forum Technical Committee which will be called the <u>IN Interconnection and Access Group</u>"

Organizing Committee Activities

- Communications were sent to mailing list responders to the Show of Interest Letter (May 13, June 17, July 12)

- A meeting of responders to the Show of Interest Letter was tentatively scheduled for August 2 to respond to the IN Forum and reach agreement on project placement

- The June 20, 1996 ATIS reorganization and pending FCC ruling in 96-98 prompted the Committee to postpone the meeting to consider new information

Organizing Committee Activities

- **Reviewed FCC 96-98**

- **IN Forum provided information on how initial project work could begin within a few weeks**

- **ATIS provided information on its new committee structure and testing committees**

- **Determined that ATIS, once reorganization was completed and testing committees formed, provided an industry/regulator recognized venue for Industry testing**

- **The Committee felt that the Project needed to be launched as soon as possible**

Organizing Committee Activities

- **Agreement on recommendation - August 27**
- **Recommendation: The IN Project should involve a relationship with both the IN Forum and ATIS**
  - **INF: identifying industry requirements, performing research, identifying the tests and trials needed to meet requirements**
  - **Liaison with ATIS: identifying optimal means for coordinating and conducting tests**
- **Recommendation approved at October 3 Project Organizing Meeting**

The committee felt this approach would move the project forward in an expeditious and timely manner along with utilizing the capabilities of both the IN Forum and ATIS

Organizing Committe Recommendation

• Begin the Project through creation of a working group within the Intelligent Network Forum, to work on the tasks identified in Step 1 (*Organizational Meeting*) and Step 2 (*Identify, Research, and Analyze IN Requirements, Design Lab Tests and Field Trials*) of the LEC Proposal for An Industry IN Project. This work would include gaining participant commitment of resources, identifying industry requirements, performing research and analysis, and identifying the tests and trials needed to address industry requirements. Work could begin at the October 17, 1996 IN Forum meeting.

<u>Organizing Committe Recommendation</u>

• Initiate liaison discussions between the IN Forum and appropriate forums and/or committees within the Alliance for Telecommunications Industry Solutions. (ATIS). The purpose of these liaisons would be to identify and implement, as appropriate, the optimal means for coordinating and conducting the various tests envisioned for the IN Project. Both ATIS and the IN Forum have agreed to create a liaison function for this purpose.

ATTACHMENT 3

Intelligent Network Forum
Interconnection and Access Group
Technical Committee Update

IN Intelligent Network Forum
FORUM IN Interconnection & Access Group

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┌─────────────────────────────────┐
│ Technical Committee Update      │
│ INF Annual Meeting              │
│ October 16-17, 1996             │
│ Schaumberg, IL                  │
└─────────────────────────────────┘
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Work Group Leader - Pete Russo
Bellcore
+1 908 758 5336
prusso@notes.cc.bellcore.com

IN IN Interconnection & Access Group
FORUM Today's Objectives

- Where are we now?
  - Relationship with Industry IN Project
  - Ralph Parker, Pacific Bell
- Where are we going?
  - Proposed Mission
  - Proposed Project Plan & Potential Activities
- How will we get there?
  - Next Steps
  - Proposed Schedule

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IN Interconnection & Access Group
Proposed Mission

- To objectively gather and assess data regarding the requirements and issues associated with IN interconnection and access.
- The group will:
  - identify, research and analyze IN requirements and issues,
  - design and perform laboratory tests and field trials, through a cooperative industry-wide effort.

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IN Interconnection & Access Group
Proposed Project Plan*

- Conduct Organizational Meeting
- Identify, Research, and Analyze IN Requirements
- Design Lab Tests & Field Trials
- Liaise with ATIS to Coordinate and Conduct Tests